

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		Page 1 of 25	
2. AMENDMENT/MODIFICATION NO. 0004		3. EFFECTIVE DATE July 30, 2003		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable) Cincinnati, OH Grand Forks, ND		6. ISSUED BY		7. ADMINISTERED BY (If other than Item 6) CODE	
CODE SCO600		CODE SCO600		CODE SCO600	
DEFENSE ENERGY SUPPORT CENTER 8725 JOHN J. KINGMAN RD., SUITE 4950 FT. BELVOIR, VA 22060-6222 BUYER/SYMBOL – CARRIE L. CROSS/DESC-FPA PHONE - (703) 767-9331 FAX - (703) 767- 9338 Email – Carrie.Cross@dla.mil		6.1			
8. NAME AND ADDRESS OF CONTRACTOR (NO., street,city,county,State,and ZIP Code)			9a. AMENDMENT OF SOLICITATION NO. SP0600-03-R-0085		
			9b. DATED (SEE ITEM 11)		
			10a. MODIFICATION OF CONTRACT/ORDER NO.		
			10b. DATED (SEE ITEM 13)		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p>[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [X] is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:</p> <p>(a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or(c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>					
12. ACCOUNTING AND APPROPRIATION DATA (If required) N/A					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: MUTUAL AGREEMENT OF THE PARTIES					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor [] is not, [] is required to sign this document and return <u>1</u> copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) This amendment is being issued to provide or clarify the following information contained in this solicitation: Clauses B35, M28.04, and L201.01.100 have been revised to remove Task 14 and Task 15 and to change the title reference in CLIN 0015AE from OCA to OVA; Renumbered CLINs; Written responses to questions received from prospective offerors; The Statement Of Work has been revised to remove Task 14 and Task 15; and, The closing date of this Solicitation remains 3:00 P.M. EST July 31, 2003. Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME OF CONTRACTING OFFICER		
15B. NAME OF CONTRACTOR/OFFEROR BY _____ (Signature of person authorized to sign)		15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED

SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS**B35****SERVICES TO BE FURNISHED AND PRICES (ENVIRONMENTAL) (DESC APR 2003)**

The services to be furnished during the period specified herein and the unit prices are as follows:

FIVE YEAR CONTRACT PERIOD –April 1, 2004 through March 31, 2009

LEVEL UNIT PRICING IS REQUIRED

Contract Line Item Number	Services	Grand Forks	Cincinnati
0001	Develop a Detailed Work Plan IAW TASK 1 of the SOW		
0001A	Lump Sum Price for Work Plan in Task 1 of the SOW to Include 5 Copies of Work Plan	\$ _____	\$ _____
0001B	Unit Price Per Hour in Excess of those Included in Lump Sum Work Plan	\$ _____	\$ _____
0002	Conduct Soil/Gas Survey IAW TASK 2 of the SOW		
0002A	Price Per Unit (10 points/unit) Soil Gas Units - 4 foot depth	\$ _____	\$ _____
0002B	Price Per Unit (10 points/unit) Soil Gas Units - 14 feet depth	\$ _____	\$ _____
0002C	Mobilization Cost for Soil Gas Survey	\$ _____	\$ _____
0003	Conduct Geophysical Survey IAW TASK 3 of the SOW		
0003A	Price Per Unit of Geophysical Survey (10,000 linear feet) to Include 5 Copies of a Report of Findings	\$ _____	\$ _____
0004	Locate, Install and Sample Boring TASK 4 of the SOW		
0004A	Price per Boring up to 5 feet	\$ _____	\$ _____
0004B	Price per foot of Boring 6 to 20 feet	\$ _____	\$ _____
0004C	Price per foot of Boring 21 to 60 feet	\$ _____	\$ _____
0004D	Price per foot of Boring 61 to 150 feet	\$ _____	\$ _____
0004E	Mobilization Cost for Soil Borings	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0005	Locate, Install and Sample Monitoring Wells IAW TASK 5 of the SOW		
0005A	Price per 2" Monitoring Well up to 10 feet	\$ _____	\$ _____
0005B	Price per foot of 2" Monitoring Well 11 to 20 feet	\$ _____	\$ _____
0005C	Price per foot of 2" Monitoring Well 21 to 60 feet	\$ _____	\$ _____
0005D	Price per foot of 2" Monitoring Well 61 to 150 feet	\$ _____	\$ _____
0005E	Price per 4" Monitoring Well up to 10 feet	\$ _____	\$ _____
0005F	Price per foot of 4" Monitoring Well 11 to 20 feet	\$ _____	\$ _____
0005G	Price per foot of 4" Monitoring Well 21 to 60 feet	\$ _____	\$ _____
0005H	Price per foot of 4" Monitoring Well 61 to 150 feet	\$ _____	\$ _____
0005I	Price per foot closing 2" Monitoring Well	\$ _____	\$ _____
0005J	Price per foot closing 4" Monitoring Well	\$ _____	\$ _____
0005K	Mobilization Cost for Monitoring Wells	\$ _____	\$ _____
0006	Conduct Direct Push Testing (DPT) IAW TASK 6 of the SOW		
0006A	Price per Day of DPT	\$ _____	\$ _____
0006B	Mobilization Cost for DPT Testing	\$ _____	\$ _____
0007	Sample Beach and Ocean Sediment and Shellfish		
0007A	Price per Ocean/River Sediment Sample	\$ _____	\$ _____
0007B	Price per Beach Sediment Sample	\$ _____	\$ _____
0007C	Price per Shellfish Sample	\$ _____	\$ _____
0007D	Mobilization Costs for Shellfish Sampling	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0008	Conduct Analytical Testing, Cost Per Test for the Following Procedures:		
0008A	6010	\$ _____	\$ _____
0008B	8015	\$ _____	\$ _____
0008C	8021	\$ _____	\$ _____
0008D	8041	\$ _____	\$ _____
0008E	8081	\$ _____	\$ _____
0008F	8121	\$ _____	\$ _____
0008G	8151	\$ _____	\$ _____
0008H	8260	\$ _____	\$ _____
0008I	8270	\$ _____	\$ _____
0008J	8310	\$ _____	\$ _____
0008K	8440	\$ _____	\$ _____
0008L	418.1	\$ _____	\$ _____
0008M	601	\$ _____	\$ _____
0008N	602	\$ _____	\$ _____
0008O	604	\$ _____	\$ _____
0008P	608	\$ _____	\$ _____
0008Q	610	\$ _____	\$ _____
0008R	612	\$ _____	\$ _____
0008S	624	\$ _____	\$ _____
0008T	625	\$ _____	\$ _____
0008U	TCLP Metals	\$ _____	\$ _____
0008V	9045	\$ _____	\$ _____
0008W	1010/1020	\$ _____	\$ _____
0008X	Bioassay (Toxicity)	\$ _____	\$ _____
0008Y	Chloride	\$ _____	\$ _____
0008Z	Sulfates	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0008AA	Sulfides	\$ _____	\$ _____
0008AB	Nitrogen	\$ _____	\$ _____
0008AC	Phenols	\$ _____	\$ _____
0008AD	Turbidity	\$ _____	\$ _____
0008AE	Lead	\$ _____	\$ _____
0008AF	pH	\$ _____	\$ _____
0008AG	Settleable Solids	\$ _____	\$ _____
0008AH	Total Dissolved Solids	\$ _____	\$ _____
0008AI	BOD	\$ _____	\$ _____
0008AJ	Suspended Solids	\$ _____	\$ _____
0008AK	EDB	\$ _____	\$ _____
0008AL	Phenolic Compounds (Chlorinated)	\$ _____	\$ _____
0008AM	Oil & Grease	\$ _____	\$ _____
0008AN	EPA-TO-14 (BTEX Only)	\$ _____	\$ _____
0008AO	Nitrate/Nitrite	\$ _____	\$ _____
0008AP	Ammonia	\$ _____	\$ _____
0008AQ	Total Organic Carbon	\$ _____	\$ _____
0008AR	Orthophosphate	\$ _____	\$ _____
0008AS	Moisture Content	\$ _____	\$ _____
0008AT	Total Bacterial Plate Count	\$ _____	\$ _____
0008AU	Selective Bacterial Plate Count	\$ _____	\$ _____
0008AV	Grain Size ASTM D 422	\$ _____	\$ _____
0008AW	Hydraulic Conductivity ASTM D 5084	\$ _____	\$ _____
0008AX	Permeability of Granular Soils ASTM D 2434	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0009	Perform Monitoring Well Survey IAW TASK 9 of the SOW		
0009A	Price per Unit of Well Location Surveying (10 wells/unit)	\$ _____	\$ _____
0010	Install and Maintain Recovery Well IAW TASK 10 of the SOW		
0010A	Price per 6" Recovery Wells up to 10 ft (including water table depression and free product recovery pump)	\$ _____	\$ _____
0010B	Price per foot of 6" Recovery Well from 11 to 20 feet	\$ _____	\$ _____
0010C	Price per foot of 6" Recovery Well from 21 to 60 feet	\$ _____	\$ _____
0010D	Price per foot of 6" Recovery Well from 61 to 120 ft	N/A	N/A
0010E	Mobilization Costs for 6" Recovery Well	\$ _____	\$ _____
0010F	Monthly price for Operation and Maintenance of 6" Recovery Well	\$ _____	\$ _____
0010G	Cost of Installing Water Table Depression and Free Product Recovery Pump System on a 4" Monitoring Well	\$ _____	\$ _____
0010H	Mobilization Cost for 4" Recovery Pump System	\$ _____	\$ _____
0010I	Monthly Price for Operation and Maintenance of 4" Recovery Well	\$ _____	\$ _____
0010J	Price per foot closing 6" Recovery Well	\$ _____	\$ _____
0011	Install and Maintain Recovery Trench System IAW TASK 11 of the SOW		
0011A	Lump Sum Price Per Unit of Recovery Trench System, Including Free Product Recovery and Water Table Depression Pump	\$ _____	\$ _____
0011B	Mobilization Cost for Recovery Trench Construction and Recovery Pump System Installation	\$ _____	\$ _____
0011C	Monthly Cost for Operation and Maintenance of Recovery Trench	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0012	Conduct Pump Test IAW TASK 12 of the SOW		
0012A	Lump Sum Price to Conduct Pump Test	N/A	\$ _____
0013	Conduct Remediation Feasibility Studies and/or Pilot Tests IAW TASK 13 of the SOW		
0013A	<u>Vapor Extraction System</u>		
0013AA	Vapor Extraction System Feasibility Study/Pilot Test	\$ _____	\$ _____
0013AB	Price Per Hour for Development of Vapor Extraction System Documentation	\$ _____	\$ _____
0013B	<u>In-Situ Bioremediation System</u>		
0013BA	Lump Sum Price for Bioremediation System Feasibility Study	\$ _____	\$ _____
0013BB	Price Per Hour for Development of Bioremediation System Feasibility Documentation	\$ _____	\$ _____
0013C	<u>Air Stripper</u>		
0013CA	Lump Sum Price for Air Stripper Pilot Test	\$ _____	\$ _____
0013CB	Price Per Hour for Development of Air Stripper Pilot Test Documentation	\$ _____	\$ _____
0013D	<u>Liquid Phase Carbon Adsorption System</u>		
0013DA	Lump Sum Price for Liquid Phase Carbon Adsorption System	\$ _____	\$ _____
0013DB	Price Per Hour for Development of Liquid Phase Carbon Adsorption System Documentation	\$ _____	\$ _____
0013E	<u>Bioventing Pilot Test</u>		
0013EA	Lump Sum Price for Bioventing Pilot Test	\$ _____	\$ _____
0013EB	Price Per Hour for Development of Bioventing Pilot Test Documentation	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0013F	<u>Air Sparge Pilot Test</u>		
0013FA	Lump Sum Price for Air Sparge Pilot Test	\$ _____	\$ _____
0013FB	Price Per Hour for Development of Air Sparge Pilot Test Documentation	\$ _____	\$ _____
0013G	<u>Steam Injection Bench Scale Test</u>		
0013GA	Lump Sum Price per Steam Injection Bench Scale Test	\$ _____	\$ _____
0013GB	Price Per Hour for Development of Steam Injection Bench Scale Test Documentation	\$ _____	\$ _____
0013H	<u>Bioslurp Pilot Test</u>		
0013HA	Lump Sum Price for Bioslurp Pilot Test	\$ _____	\$ _____
0013HB	Price Per Hour for Development of Bioslurp Pilot Test Documentation	\$ _____	\$ _____
0014	Provide Report of Findings IAW TASK 14 of the SOW		
0014A	Lump Sum Price for Report Preparation to Include 5 copies of the Report	\$ _____	\$ _____
0014B	Price Per Hour for Report in Excess of those Included in Lump Sum	\$ _____	\$ _____
0015	Miscellaneous Services IAW TASK 15 of the SOW		
0015A	Project Manager Price Per Hour	\$ _____	\$ _____
0015B	Engineer I Price Per Hour*	\$ _____	\$ _____
0015C	Engineer II Price Per Hour*	\$ _____	\$ _____
0015D	Engineer III Price Per Hour*	\$ _____	\$ _____
0015E	Chemist Price Per Hour	\$ _____	\$ _____
0015F	Environmental Scientist I Price Per Hour*	\$ _____	\$ _____
0015G	Environmental Scientist II Price Per Hour*	\$ _____	\$ _____
0015H	Environmental Scientist III Price Per Hour*	\$ _____	\$ _____
0015I	Geologist I Price Per Hour*	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0015J	Geologist II Price Per Hour*	\$ _____	\$ _____
0015K	Geologist III Price Per Hour*	\$ _____	\$ _____
0015L	Hydrogeologist I Price Per Hour*	\$ _____	\$ _____
0015M	Hydrogeologist II Price Per Hour*	\$ _____	\$ _____
0015N	Hydrogeologist III Price Per Hour*	\$ _____	\$ _____
0015O	Toxicologist I Price Per Hour*	\$ _____	\$ _____
0015P	Toxicologist II Price Per Hour*	\$ _____	\$ _____
0015Q	Toxicologist III Price Per Hour*	\$ _____	\$ _____
0015R	Drafter Price Per Hour	\$ _____	\$ _____
0015S	Traffic Control Engineer Price Per Hour	\$ _____	\$ _____
0015T	Cost Accountant Price Per Hour	\$ _____	\$ _____
0015U	Secretary Price Per Hour	\$ _____	\$ _____
0015V	Site Labor Foreman Price Per Hour	\$ _____	\$ _____
0015W	Remediation System Operator Price Per Hour	\$ _____	\$ _____
0015X	Heavy Equipment Operator Price Per Hour	\$ _____	\$ _____
0015Y	Laborer Price Per Hour	\$ _____	\$ _____
0015Z	Drill Rig Operator Price Per Hour	\$ _____	\$ _____
0015AA	Engineering Technician Price Per Hour	\$ _____	\$ _____
0015AB	Utility Truck Price Per Day	\$ _____	\$ _____
0015AC	02/Explosimeter Price Per Day	\$ _____	\$ _____
0015AD	Sampling Pump Price Per Day	\$ _____	\$ _____
0015AE	Flame Ionization OVA Price Per Day	\$ _____	\$ _____
0015AF	Air Velocity Meter Price Per Day	\$ _____	\$ _____
0015AG	Field GC Price Per Day	\$ _____	\$ _____

Contract Line Item Number	Services	Grand Forks	Cincinnati
0015AH	Furnish and Fill with Soil or Water DOT Approved 55 Gal Drum, Price Per Drum	\$ _____	\$ _____
0015AI	Shipping of Soil and Water Samples for Analytical Testing Price Per 251b Shipping Container	\$ _____	\$ _____
0015AJ	Disposable Bailers	\$ _____	\$ _____
0015AK	500 CFM Thermal Oxidizer (for 6 months use, including mobilization and demobilization)	\$ _____	\$ _____
0015AL	Tedlar Bags Price Per Dozen	\$ _____	\$ _____
0015AM	Pickup Truck (1/2 ton) Price Per Day	\$ _____	\$ _____
0015AN	1 CY Backhoe Loader Price Per Day	\$ _____	\$ _____
0015AO	1 1/2 CY Hydraulic Excavator Price Per Day	\$ _____	\$ _____
0015AP	Drill Rig Price Per Day	\$ _____	\$ _____
0015AQ	Dewatering Pump (150 GPM) Price Per Day	\$ _____	\$ _____
0015AR	Air Compressor (7 cfm) Price Per Day	\$ _____	\$ _____
0015AS	Generator (4000 watt) Price Per Day	\$ _____	\$ _____
0015AT	CAD Equipment Use Charge Price Per Day	\$ _____	\$ _____
0015AU	Photoionization Detector Price Per Day	\$ _____	\$ _____
0016	Markup for Overhead & Profit**	_____ %	_____ %
0017	Lump Sum Price for Background Review	\$ _____	\$ _____

*Where labor grade classifications are used (e.g., I, II, III), I is the lowest skill level, II is the intermediate, and III is the highest skill level.

**State as a percentage, it will be added to the Direct Cost of Work Negotiated under CLIN 0018

M28.04 BASIS FOR AWARD (ENVIRONMENTAL) (DESC APR 2003)

(a) Award of any contract resulting from this solicitation shall be made using source selection procedures. Proposals submitted in response to the solicitation will be evaluated by a board of one or more Government personnel, with selection made on the basis of each offeror's ability to satisfy the requirements of the solicitation. Final selection will be made by the Source Selection Authority.

(b) Award will be made on the basis of the proposal that conforms to the solicitation and is determined to contain the combination of technical, management, and cost features representing the best overall value to the Government, cost or price, technical, management, quality, and other factors considered. For this solicitation, technical and management factors combined are significantly more important than cost or price. As proposals become more equal in their technical merit, the evaluated cost or price and past performance become more important. Technical and management evaluation areas listed in descending order of importance are--

(1) **TECHNICAL/MANAGEMENT.** Within this factor, the following 3 subfactors are the highest ranked and each are of equal importance:

(i) Technical merit and general responsiveness of the proposal, particularly in addressing the sample scenario in the SPECIFIC INSTRUCTIONS FOR PREPARING OFFERS (ENVIRONMENTAL) clause;

(ii) Petroleum remediation experience of the offeror; and

(iii) Petroleum remediation experience of the offeror's Project Manager.

The remaining 3 subfactors are listed in descending order of importance:

(iv) Contractor initiatives to reduce costs;

(v) Response time; and

(vi) In-house capability.

(2) **PAST PERFORMANCE.** This factor will be evaluated using information from references provided by the Contractor in the SPECIFIC INSTRUCTIONS FOR PREPARING OFFERS (ENVIRONMENTAL) clause. The Government reserves the right to consider any additional information on the offeror obtained through other names.

(3) **PRICE.** This factor will be evaluated by multiplying the proposed prices in the SERVICES TO BE FURNISHED AND PRICES (ENVIRONMENTAL) clause by the estimated units shown in the following schedule for the respective line items. The Government reserves the right to award to other than the lowest evaluated price.

NOTE: The estimates provided below are for evaluation purposes only and do not represent any guarantee on the Government's part to order the quantities listed.

ESTIMATED QUANTITIES (YEAR 1)

<u>Contract Line</u>		<u>Grand Forks</u>	<u>Cincinnati</u>
<u>Item Number</u>	<u>Services</u>	<u>Quantity</u>	<u>Quantity</u>
0001	Work Plan		
0001A	Work Plan – 30 unit hours	1	4
0001B	Work Plan Excess Hours	20	60
0002	Soil/Gas Survey		
0002A	Soil Gas Units - 4 foot depth	1	1
0002B	Soil Gas Units - 14 feet depth	1	1
0002C	Soil Gas Survey Mobilizations	1	1
0003	Geophysical Survey		
0003A	Geophysical Survey Units	1	1
0004	Soil Borings		
0004A	Boring up to 5 feet	20	25
0004B	Feet of Boring 6 to 20 feet	60	75
0004C	Feet of Boring 21 to 60 feet.	1	100
0004D	Feet of Boring 61 to 150 feet.	1	1
0004E	Mobilizations for Soil Borings	1	1
0005	Monitoring Wells		
0005A	2" Monitoring Well up to 10 feet	1	1
0005B	Feet of 2" Well 11 to 20 feet	1	1
0005C	Feet of 2" Well 21 to 60 feet.	1	1

<u>Contract Line</u>		<u>Grand Forks</u>	<u>Cincinnati</u>
<u>Item Number</u>	<u>Services</u>	<u>Quantity</u>	<u>Quantity</u>
0005D	Feet of 2" well 61 to 150 feet.	1	1
0005E	4" Monitoring Well up to 10 feet	1	5
0005F	Feet of 4" Monitoring Well 11 to 20 feet	1	50
0005G	Feet of 4" Well 21 to 60 feet	1	50
0005H	Feet of 4" Well 61 to 150 feet	1	1
0005I	Feet of Closing/Abandoning 2" dia. Well	1	50
0005J	Feet of Closing/Abandoning 4" dia. Well	1	1
0005K	Mobilization for Monitoring Wells	1	2
0006	Direct Push Testing		
0006A	Day of DPT	1	1
0006B	Mobilization for DPT Testing	1	1
0007	Sample Beach and Ocean Sediment and Shellfish		
0007A	Price per Ocean/River Sediment Sample	N/A	1
0007B	Price per Beach Sediment Sample	N/A	1
0007C	Price per Shellfish Sample	N/A	1
0007D	Mobilization Costs for Shellfish Sampling	N/A	1
0008	Analytical Testing		
0008A	6010	1	1
0008B	8015	30	10
0008C	8021	30	20
0008D	8041	1	90
0008E	8081	1	1
0008F	8121	1	1
0008G	8151	1	1
0008H	8260	1	10
0008I	8270	1	1
0008J	8310	1	1
0008K	8440	1	75
0008L	418.1	1	1
0008M	601	1	1
0008N	602	1	1
0008O	604	1	1
0008P	608	1	1
0008Q	610	1	1
0008R	612	1	1
0008S	624	1	1
0008T	625	1	1
0008U	TCLP Metals	1	10
0008V	9045	1	1
0008W	1010/1020	1	1
0008X	Bioassay (Toxicity)	1	1
0008Y	Chloride	1	1
0008Z	Sulfates	1	1
0008AA	Sulfides	1	1
0008AB	Nitrogen	1	1

<u>Contract Line</u>		<u>Grand Forks</u>	<u>Cincinnati</u>
<u>Item Number</u>	<u>Services</u>	<u>Quantity</u>	<u>Quantity</u>
0008AC	Phenols	1	1
0008AD	Turbidity	1	1
0008AE	Lead	1	1
0008AF	PH	1	1
0008AG	Settleable solids	1	1
0008AH	Total Dissolved Solids	1	1
0008AI	BOD	1	1
0008AJ	Suspended Solids	1	1
0008AK	EDB	1	1
0008AL	Phenolic Compounds (Chlorinated)	1	1
0008AM	Oil & Grease	1	1
0008AN	EPA-TO-14 (BTEX Only)	1	1
0008AO	Nitrate/Nitrite	1	1
0008AP	Ammonia	1	1
0008AQ	Total Organic Carbon	1	1
0008AR	Orthophosphate	1	1
0008AS	Moisture Content	1	1
0008AT	Total Bacterial Plate Count	1	1
0008AU	Selective Bacterial Plate Count	1	1
0008AV	Grain Size ASTM D 422	1	1
0008AW	Hydraulic Conductivity ASTM D 5084	1	1
0008AX	Permeability of Granular Soils ASTM D 2434	1	1
0009	Monitoring Well Survey		
0009A	Well Location Surveying Units	1	2
0010	Recovery Wells		
0010A	6" Recovery Wells up to 10 Feet	1	1
0010B	Feet of 6" Recovery Well 11 to 20 Feet	1	1
0010C	Feet of 6" Recovery Well 21 to 60 Feet	1	1
0010D	Feet of 6" Recovery Well from 61 to 120 Feet	1	1
0010E	Mobilizations for 6" Recovery Well.	1	1
0010F	Months of 6" Recovery Well O&M	1	1
0010G	Install Pump System on Exst'g 4" Well	1	1
0010H	Mobilizations for Pump Install on Exst'g 4" Well	1	1
0010I	Months of 4" Recovery Well O&M	1	1
0010J	Per foot closing 6" Recovery Well	1	1
0011	Recovery Trench System		
0011A	Units of Recovery Trench Installation	1	1
0011B	Mobilizations for Recovery Trench Installation	1	1
0011C	Months of Recovery Trench O&M	1	1
0012	Pump Test		
0012A	Conduct Pump Test	1	1

<u>Contract Line</u>		<u>Grand Forks</u>	<u>Cincinnati</u>
<u>Item Number</u>	<u>Services</u>	<u>Quantity</u>	<u>Quantity</u>
0013	Remediation Feasibility Studies/Pilot Tests		
0013A	Vapor Extraction System		
0013AA	Vapor Extraction System Feasibility Study/Pilot Tests	1	1
0013AB	Hours for Development of System Documentation	1	1
0013B	In-Situ Bioremediation System		
0013BA	Bioremediation System Feasibility Study	1	1
0013BB	Hours for Development of System Documentation	1	400
0013C	Air Stripper		
0013CA	Air Stripper Pilot Test	1	1
0013CB	Hours for Development of System Documentation	1	1
0013D	Liquid Phase Carbon Adsorption		
0013DA	Liquid Phase Carbon Adsorption System	1	1
0013DB	Hours for Development of System Documentation	1	1
0013E	Bioventing		
0013EA	Bioventing Pilot Test	1	1
0013EB	Hours for Development of System Documentation	1	1
0013F	Air Sparging		
0013FA	Air Sparge Pilot Test	1	1
0013FB	Hours for Development of System Documentation	1	150
0013G	Steam Injection		
0013GA	Steam Injection Bench Scale Test	1	1
0013GB	Hours for Development of System Documentation	1	1
0013H	Bioslurping		
0013HA	Bioslurping Pilot Test	1	1
0013HB	Hours for Development of System Documentation	1	1
0014	Report of Findings		
0014A	Report Preparation	1	4
0014B	Excess Hours for Report Preparation	40	160
0015	Miscellaneous Services		
0015A	Project Manager Hours	60	200
0015B	Engineer I Hours	1	500
0015C	Engineer II Hours	1	300
0015D	Engineer III Hours	1	200
0015E	Chemist Hours	1	1
0015F	Environmental Scientist I Hours	60	200
0015G	Environmental Scientist II Hours	1	50
0015H	Environmental Scientist III Hours	60	50
0015I	Geologist I Price Hours	1	100
0015J	Geologist II Hours	1	200
0015K	Geologist III Price Hours	120	100
0015L	Hydrogeologist I Hours	1	50

<u>Contract Line</u>		<u>Grand Forks</u>	<u>Cincinnati</u>
<u>Item Number</u>	<u>Services</u>	<u>Quantity</u>	<u>Quantity</u>
0015M	Hydrogeologist II Hours	1	100
0015N	Hydrogeologist III Hours	1	150
0015O	Toxicologist I Hours	1	1
0015P	Toxicologist II Hours	1	8
0015Q	Toxicologist III Hours	1	1
0015R	Drafter Hours	20	40
0015S	Traffic Control Engineer Hours	1	1
0015T	Cost Accountant Hours	20	150
0015U	Secretary Hours	20	200
0015V	Site Labor Foreman Hours	1	1
0015W	Remediation System Operator Hours	1	1
0015X	Heavy Equipment Operator Hours	1	200
0015Y	Laborer Hours	1	500
0015Z	Drill Rig Operator Hours	1	50
0015AA	Engineering Technician Hours	1	1000
0015AB	Utility Truck Days	5	100
0015AC	02/Explosimeter Days	5	100
0015AD	Sampling Pump Days	1	40
0015AE	Flame Ionization OVA Days	1	60
0015AF	Air Velocity Meter Days	1	10
0015AG	Field GC Days	1	10
0015AH	DOT Approved 55 Gal Drums	5	50
0015AI	Ship 25lb Units of Soil and Water Samples	2	5
0015AJ	Disposable Bailers	30	100
0015AK	500 CFM Thermal Oxidizer	1	1
0015AL	Tedlar Bags (dozen)	1	10
0015AM	Pickup Truck (1/2 ton) Days	1	25
0015AN	1 CY Backhoe Loader Days	1	5
0015AO	1 1/2 CY Hydraulic Excavator Days	1	5
0015AP	Drill Rig Days	1	5
0015AQ	Dewatering Pump (150 GPM) Days	1	5
0015AR	Air Compressor (7 cfm) Days	1	5
0015AS	Generator (4000 watt) Days	1	100
0015AT	CAD Equipment Use Charge Days	1	5
0015AU	Photoionization Detector Days	5	30
0016	Other Direct Costs (Dollars x 1000)* * Cost evaluation will be made using dollar figure shown times the percent of overhead and profit provided by the Offeror in Contract Line Item 0018 of Clause B35 SERVICES TO BE PROVIDED AND PRICES.	15	75
0017	Lump Sum Price for Background Review	1	1

(4) **SOCIOECONOMIC PLAN.** This factor will be evaluated on a comparative basis among all offerors. An offeror that proposes a higher percentage, complexity level, and variety in participation by small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran-owned small, and women-owned small business, and Historically Black Colleges and Universities and Minority Institutions combined generally will receive a higher rating on this factor. An offeror that compiles and considers past performance data on its subcontractors in

the source selection decision for subcontracts will receive a higher rating on this factor. An offeror's efforts to develop additional opportunities for small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran-owned small, and women-owned small business, and Historically Black Colleges and Universities and Minority Institutions will also be comparatively evaluated with the proposals of other offerors. Offeror's proposals for socioeconomic support will be made a part of any resulting contract for use in determining how well the Contractor has adhered to its socioeconomic plan. This plan will be monitored as a means of assisting the Contracting Officer in determining how well the Contractor has in fact performed. This determination will then be used as a consideration prior to future source selection decisions. Past performance on prior contracts in subcontracting and assisting small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran-owned small, and women-owned small businesses, and Historically Black Colleges and Universities and Minority Institutions will also be evaluated as part of this factor.

NOTE: As a matter of clarification, offerors will receive a higher rating under the Technical/Management evaluation for the capability to perform required services in-house. The Socioeconomic Plan evaluation will consider that part of the required services that cannot be performed in-house.

(c) Award(s) will be made to the offeror(s) whose proposal conforms to the solicitation and represents the best value to the Government, after consideration of all evaluation factors listed above.

(DESC 52.209-9F35)

L201.01.100 SPECIFIC INSTRUCTIONS FOR PREPARING OFFERS (ENVIRONMENTAL) (DESC JUL 2003)

The proposal shall consist of the completed SF33 (Solicitation, Offer, and Award), the Offeror Submission Package and the Technical Proposal. The Offeror shall submit two copies of their proposal, clearly divided into the following two parts:

1. OFFEROR SUBMISSION PACKAGE: Complete all required representations and certifications in Attachment 2 of the Solicitation, and provide proposed prices in Clause B35. Clause B35 should be submitted on the disk provided at the pre-proposal conference and printed out in hard copy as part of the Certification Package. Prices proposed must be based on descriptions of tasks as stated in the Statement of Work. Proposed prices for CLINs 0001 through 0015 and CLIN 0017 should contain all material, equipment, labor, overhead and profit (OH&P) associated in the performance of the Task. CLIN 0016 is the only Task under this contract for which the contractor will be entitled to mark-ups for OH&P to be added to the direct cost of the work. The Offeror Submission Package should also include the following:

a. **PAST PERFORMANCE.** The offeror must provide the **following information** for the three most recent contracts and subcontracts held, to include those in progress, that are most related to the proposed contract.

- (1) Name and address of contracting activity;
- (2) Points of contact (names of Contracting Officer, Contracting Officer's Representative, Administrative Contracting Officer program manager, etc., as applicable) and phone numbers of activity personnel;
- (3) Contract number;
- (4) Contract type and dollar value;
- (5) Brief description of the work;
- (6) Information on any significant problems encountered and corrective actions taken; and
- (7) A listing of subcontractors used for reference contracts/subcontracts with their designation as large business, small business, small disadvantaged business, veteran-owned small business, HUBZone small business, service-disabled veteran owned small business, or women-owned small business, or Historically Black Colleges and Universities and Minority Institutions.

b. **SOCIOECONOMIC PLAN.** The offeror must provide the **following**:

- (1) A **description of their efforts** to ensure that small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran owned small, and women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions will have an equal opportunity to compete for subcontracts under any resultant contract. The description should include the offeror's proposed range of services, supplies, and any other support that will be provided to the offeror by small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran owned small, and women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Specific names of any known subcontractors should be included.
- (2) A **description of any future plans** the offeror has for developing additional subcontracting opportunities for small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran owned small, and women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions during the contract period.
- (3) The **proportion of the offeror's proposal, as a percentage of dollars, that will be subcontracted** to small, small disadvantaged, veteran-owned small, HUBZone small, service-disabled veteran owned small, and women-owned small businesses, and Historically Black Colleges and Universities and Minority Institutions.

c. **CONTRACTOR'S ACCOUNTING SYSTEM.** In accordance with Clause G17.01, provide **written disclosure of the cost accounting system and practices** for this contract which shall identify and record site specific costs on a site specific basis and by contract task order and line item. Site specific cost documentation for each contract task order must be readily retrievable and sufficiently identifiable to enable cross referencing with payment vouchers. The foregoing is in addition to and/or complimentary to other Cost Accounting Standards clauses in this contract.

2. TECHNICAL/MANAGEMENT PROPOSAL: The Technical/Management Proposal shall be complete enough to demonstrate the Offeror's understanding of the requirements and associated problems identified in the Statement of Work in Attachment 1. Statements such as the "Offeror will comply", "standard procedures will be employed", or "well known techniques will be used" are inadequate. If sufficient information is not submitted, proposals may be considered technically unacceptable, which will exclude the proposal from further consideration. The Technical/Management Proposal shall be submitted aligned with the evaluation factors set forth in Clause M28.04 to facilitate government review and evaluations of the proposal.

a. For the following **TASKS**, the Offeror must provide the **supplemental information** described below:

- (1) For **TASK 8** Sample Testing, the **standard turnaround time** in business days to obtain analytical results, and **surcharges** to be added to proposed prices for 72-hour and 24-hour expedited turnaround.
- (2) For **TASKS 13AB, 13BB, 13CB, 13DB, 13EB, 13FB, 13GB, and 13HB** the **estimated number of Price Per Hour** necessary to develop documentation of the applicable remediation system. Documentation is to be developed in sufficient detail to allow regulatory agency review and approval and following approval, procurement and installation of the system. Provide the price per hour to develop documentation in the appropriate blocks of Clause B35.
- (3) For **TASK 13B** Bioremediation System, **details of the work** included in the proposed cost.
- (4) For **TASK 17** provide a detailed breakdown of the level of effort needed to review all existing environmental reports generated for the sites to be included in this contract.
- (5) For **ALL TASKS**, **details of assumptions** made by the Offeror. NOTE: Prices proposed in Clause B35, **SERVICES TO BE FURNISHED AND PRICES** (DESC APR 2003) must be based on descriptions of tasks as stated in the Statement of Work.

b. For the **sample scenario** following subparagraph (8) below, prepare and submit the following:

- (1) A **brief (1/2 type written page maximum) description** of a **proposed site closure strategy**.
- (2) A **brief (1/2 type written page maximum) description** of additional site assessment and program for the remediation in the quickest, most economical, and efficient manner.
- (3) Provide a **detailed breakdown of the level of effort** to **install fifteen 4" monitoring wells** at the site for further assessment of the site. The level of effort shall include the development of a workplan. A written description of the work is not required.
- (4) Provide a **detailed breakdown of the level of effort** to **conduct an aquifer pump test** to estimate the hydraulic

characteristics of the saturated zone (aquifer test) and to evaluate the efficiency of the pumping well (well test). Pump test shall be conducted using a submersible pump capable of pumping up to 10 gallons per minute. Electricity for the pump motor shall be supplied by diesel-powered generator. Groundwater shall be extracted from the well and the water level shall be monitored in 4 wells at a distance of 50, 35, 30 and 25 feet from the pumping well. Extracted water shall be stored in a contractor furnished 21,000 gallon tank. The pump test shall be conducted in three steps within two days. Pumping rates range from 4 to 8 gpm. For each pumping step, the rate shall be increased by a factor of about 1.5. Water levels shall be continuously monitored in the pump well and four observation wells prior to, during and after the pump test. Measurements shall be collected using data logger, pressure transducers and interface probe. During pumping from the recovery well, electrical conductivity, pH, temperature, turbidity and the volume pumped per unit time will shall be monitored. For this scenario assume that the wells are existing (in place). A written description of the work is not required.

(5) Provide a **detailed breakdown of the level of effort** needed to conduct **air sparge testing** on four test wells. For this scenario assume that all wells are existing (in place). Goal of air sparge testing is to:

- (a) Determine the effective radius of influence of the injected sparge air;
- (b) Determine the optimum air sparge pressure and flow rate;
- (c) Evaluate the feasibility of using sparging separately, or in conjunction with other technologies to achieve site cleanup goals; and
- (d) Evaluate the heterogeneity of subsurface vapor flow.

Prior to the air sparging test, initial groundwater conditions (depth-to-groundwater and dissolved oxygen concentration) shall be monitored in the four test wells. All groundwater monitoring wells used shall be gauged using an interface probe capable of measuring depth-to-water and depth-to-free product. Groundwater samples shall be obtained from the injection wells and an observation well, prior to commencement of air injection for the air sparge test. Each sample shall be collected using a disposable bailer. The samples shall be analyzed for total petroleum hydrocarbons (TPH) and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) following EPA Methods 418.1 and 602 respectively.

Following the measurements of base line data in the observation and test wells, compressed air shall be introduced into the respective test sparge points. Air injection shall be controlled using a pressure regulator, and monitored using a flow meter. Three flow settings shall be used for the tests, performed as a pressure step-up tests at the test points.

After achieving calculated breakthrough pressure and stable conditions, the regulator shall be adjusted to supply 3 cubic feet per minute (cfm) of air flow to the test points for 1 to 2 Price Per Hour. During this period, the test points and observation wells shall be monitored at 30 minute intervals. The injection pressure shall be adjusted to produce 5 to 6 cfm, and then 8 to 9 cfm for the same durations in succession at each test point. Monitoring at the test points and observation wells shall continue every 30 minutes for the duration of the test. A written description of the work is not required.

NOTE: Where the offeror is required to submit a Detailed Breakdown of the Level of Effort, this shall consist of a list using the line items that will be included in the contract (CLINs) (see Section B SUPPLIES/SERVICES AND PRICES/COSTS) that the offeror would anticipate using to accomplish the work. The submittal shall be in tabular form showing the CLIN and number of hours.

Sample Scenario

BACKGROUND: The site is a US Government owned facility for the receipt, storage, and distribution of military mobility fuels. Twelve aboveground storage tanks with a capacity of approximately 3,500,000 gallons each are used for storage. Fuel is transferred to, from, and within the facility primarily via underground pipelines. Previous site investigations have been performed which indicate the presence of free phase hydrocarbon.

SITE GEOLOGY: The regional geology in the area is characterized as claystone, siltstone and minor sandstone. Based on the monitoring well drilling logs, the sites subsurface lithology consists of colluviums up to 30 feet thick. The colluvium grades into a highly weathered bedrock zone which overlies the rock units of the Penoché formation

HYDROGEOLOGY: Based on the groundwater measurements in the monitoring wells, two water-bearing zones are present: an upper shallow water-bearing zone, and a lower regional groundwater system. Upper water-bearing zone is contained within the weathered bedrock and fill around the tanks, coincides with the topography, and flows away from the tanks in a radial pattern generally following surface topography. Depth to shallow aquifer is 25 feet. A lower water-bearing zone, which is hypothesized as being recharged from the upper zone through joints and fractures, has been identified at a depth of 90'. Groundwater flow within the lower water system is generally to the north toward a tidal estuary that borders the site.

SOIL ANALYTICAL RESULTS: Soil samples collected from the soil borings were submitted for chemical analyses. The selected soil samples were analyzed for volatile organics, benzene, toluene, ethylbenzene, and total xylenes (BTX) and aviation gasoline following EPA Methods 8020 and 8015; for total petroleum hydrocarbons (TPH) as JP4, JP5, and Jet-A by GC-FID and SW-846; and for total lead following EPA Method 7420.

One soil sample from the 10.0-foot sampling interval in each soil boring was submitted for chemical analyses. Analytical results indicated concentrations of benzene ranging from below the method detection limit to 3.9 mg/kg, toluene ranging from less than 0.005 to 11 mg/kg, ethylbenzene ranging from less than 0.005 to 7.6 mg/kg, and total xylenes ranging from less than 0.15 to 20 mg/kg, respectively. Concentrations of aviation gasoline ranged from less than 1 to 510 mg/kg. Concentrations of TPH as JP4 and JP5 were reported as below the method detection limits (10 mg/kg and 100 mg/kg). Concentrations of TPH as Jet-A ranged from less than 10, to 710 mg/kg. Total lead concentrations ranged from below the method detection limit (5 mg/kg) to 10 mg/kg.

GROUNDWATER: Results for the most recent analysis of groundwater samples from a total of 13 wells are as follows:

1. TPH as AVGAS reported in seven samples ranged from 11,000 to 58,000 ug/L.
2. Benzene was detected in nine groundwater samples at concentrations of 0.3 to 14 ug/L.
3. TPH as jet Fuel was reported in seven samples with the highest concentration reported at 195,000 ug/L.
4. Two wells contained SPH during monitoring, 0.5 and .75 -foot thickness of SPH. These wells are located in the area of the underground fuel pipeline network.
5. Total lead was detected in ten samples at concentrations of 2.3 to 51 ug/L.

END OF SAMPLE SCENARIO

c. Previous cleanup experience and capabilities of the Offeror. Experience must be related to petroleum and have taken place within the past 5 years. Remediations that consist only of removal of contaminated soil to a landfill or pilot tests are not considered qualifying experience. Provide in tabular form for a maximum of 15 petroleum remediation projects, the following information: Project/Contract Name, Geographic Location of the Work, Remediation Technology Used, Planned and Actual Implementation Schedule, Budgeted and Actual Cost, Whether or Not Offeror has Performed Multiple Contracts for the Client, and the Name/Phone No. of Client Representative.

d. Project Manager experience. For the individual(s) who will be Project Manager for any contract resulting from this solicitation, provide in tabular form the following information for a maximum of 15 petroleum assessments, 10 petroleum remediations, and 5 emergency responses to petroleum discharge incidents: Project/Contract Name, Geographic Location of the Work, Assessment Technology Used, Remediation Technology Used, Whether or Not the Project was an Emergency response, Planned and Actual Implementation Schedule, Budgeted and Actual Cost, and the Name/Phone No. of Client Representative. For the petroleum remediation work experience portion of the form, remediations that consist only of removal of contaminated soil to a landfill or pilot tests are not considered qualifying experience.

e. Contractor initiatives to reduce costs. Describe situations in which offeror identified cost saving measures for petroleum cleanup projects that occurred in the last 5 years. Provide in tabular form for a maximum of 15 petroleum assessment or remediation projects, the following information: Project/Contract Name, Geographic Location of the Work, Description of Cost Reduction Initiative, Estimate of Dollars Saved.

f. Response time. State the amount of time needed, upon notification by DESC, for the project manager to arrive on site to assess a petroleum spill. Notification will be made during normal work hours. A response time greater than 24 hours is unsatisfactory. Oil spill contingency plans have been prepared for both DFSPs. Contracts awarded pursuant to this solicitation are not intended to be first response contracts for emergency spill cleanup services.

g. Anticipate subcontracting. Complete the ANTICIPATED SUBCONTRACTING report form included with this solicitation. For the disciplines and trades listed, indicate whether the Offeror would anticipate performing the task "in-house" or use a subcontractor.

ANTICIPATED SUBCONTRACTING

<u>DISCIPLINE/TRADE</u>	<u>PERFORM IN-HOUSE</u>	<u>SUBCONTRACT</u>
<u>Soil Gas Survey</u>		
<u>Geophysical Survey</u>		
<u>Soil Borings</u>		
<u>Monitoring Well Installation</u>		
<u>Direct Push Testing</u>		
<u>Analytical Testing</u>		
<u>Surveying</u>		
<u>Excavation</u>		
<u>Electrical Work</u>		
<u>Design of Remediation Systems</u>		
<u>Remediation System O&M</u>		
<u>Environmental Impact Assessments</u>		
<u>Environmental Permitting</u>		
<u>Community Relations Programs</u>		
<u>Construction Management</u>		
<u>Remediation System Installation</u>		
<u>Environmental Assessments</u>		
<u>UST Testing</u>		
<u>UST Removal</u>		
<u>Aquifer/Permeability Testing</u>		
<u>Health Risk Assessments</u>		

The solicitation is amended to incorporate the following questions and answers. This data should be used in preparing proposals.

- Regarding Task 15, there are not really "existing state approved monitoring programs" per se at either site. We could provide the CLIN 15 costs based on what was done previously. But, based on recent meetings with DESC and the regulators, the sampling procedures at DFSP Cincinnati will probably be changing. At this time, this information would NOT be available to anyone but Shaw. Additionally, are we to price natural attenuation sampling again at DFSP Grand Forks or just the standard sampling?

Task 15 has been removed from the Solicitation. Please provide prices for only what has been requested.

STATEMENT OF WORK (Second Revision 07/03)

ENVIRONMENTAL RESPONSE CONTRACT
FOR
DEFENSE FUEL SUPPORT POINT (DFSP) GRAND FORKS, NORTH DAKOTA
AND DFSP CINCINNATI, OHIO

BACKGROUND: The Defense Energy Support Center (DESC) administers military fuel storage and transportation facilities known as Defense Fuel Support Points (DFSPs). The facilities consist of tank farms, pipelines, fuel piers, rail loading racks, and tank truck loading and off-loading racks. A brief description of the facilities covered under this solicitation follows this statement of work. JP-8 is shipped from refineries and bulk storage facilities to DFSP Grand Forks by pipeline and tank truck. The fuel is then distributed to approved customers users by pipeline and tank truck. DFSP Cincinnati is closed and deactivated; therefore, no fuel storage and distribution activities are anticipated. Fuel spills related to this storage and transportation activity occasionally occur due to accidents or equipment/material failure. Such spills and leaks require a rapid environmental response to minimize contamination of the soil, air, surface water, and groundwater environment.

SCOPE: The environmental service contractor shall conduct environmental assessments, environmental remediations, and emergency responses at the following facilities: DFSP Grand Forks (Grand Forks, ND); DFSP Cincinnati (Cincinnati, OH). Based on previous experience, DESC has compiled a list of services that might be needed to respond to an environmental work requirement. Additional mitigation, assessment, or remediation techniques recommended by the contractor may be approved for use on a specific project if the contractor can satisfactorily demonstrate to DESC that the techniques are practicable as follows: (1) mitigating fuel contamination; (2) cost effective; (3) available "off-the-shelf"; and, (4) are acceptable to state and federal authorities.

a. **ASSESSMENT:** During the assessment phase of work the contractor shall evaluate the lateral and vertical extent of contaminants in the subsurface, assess the nature and extent of free product that may be present, initiate free product recovery, assess the nature and lateral extent of groundwater and soil contamination, evaluate the geologic and hydrogeologic characteristics of the subsurface, and initiate a risk assessment. The risk assessment shall provide sufficient information to be used in remedial (corrective) action plan.

Typical Activities:

- Conduct soil and groundwater sampling utilizing conventional boring or direct push technology, classification and analysis (field screening, soil/gas survey).
- Install observation and monitoring wells.
- Perform soil and groundwater analyses.
- Perform free fuel sampling and analyses including forensic testing.
- Determine free fuel plume size and mass.
- Determine dissolved fuel plume size and mass.
- Perform pump test and analyze data.
- Estimate the hydraulic conductivity (grain size, uniformity coefficient of the sediments, and porosity measurements).
- Initiate interim free product recovery.
- Prepare summary reports of activities.
- Present findings to DESC representatives, regulatory agencies, and the public.
- Conduct a risk assessment.
- Conduct treatability testing.
- Develop a remedial action plan.

b. **REMEDICATION:** During the remediation phase of work the contractor shall install a fully functional, safe and reliable remediation system to clean up the site. The contractor shall conduct concurrent engineering rather than sequential engineering. System development documents shall be produced to industry standards. System drawings shall be created with components which could be site adapted for use on future remediation projects. The contractor is encouraged to use "cut and paste" from previously used systems in order to minimize the effort to develop a remediation system. Prepared system documents shall include text to advance the project into the next stage so that documents can be used "as-is" to procure the system without procurement specs.

Typical Activities:

- Develop system drawings.
- Obtain Regulatory Agency approval.
- Procure system components.
- Construct the remediation system.
- Prepare an O&M manual.
- Perform start-up.
- Operate and maintain the system.

TASK 1. WORK PLAN. The Contractor shall develop a work plan to conduct an environmental site investigation or remediation. The purpose of the plan is to list required tasks for a specific site assessment and/or remediation. The plan shall be developed under the direct supervision of a certified hydrogeologist or geologist, with extensive verifiable experience in hydrogeology in the state in which the work is to be performed. Upon approval of the work plan by the Contracting Officer and subject to the approval of the State or local regulatory agencies, the Contractor will implement the work plan. Proposals shall be based on the assumption that 30 work hours will be required to prepare a completed work plan. The proposal shall include providing and distributing a total of five (5) copies of the Work Plan. Upon final approval of the work plan by regulatory agencies, the Contractor shall provide the Contracting Officer a record copy on CD-R media of the approved work plan and all correspondence associated with the development and approval of the work plan (e.g. transmittal letters, regulatory agency correspondence, approvals, etc.).

TASK 2. SOIL/GAS SURVEY. The Contractor shall conduct a soil/gas survey in the area of concern to aid in locating monitoring wells. At a minimum, the soil/gas survey shall be conducted using a field gas chromatograph calibrated with government furnished samples of the types of fuel stored at the particular facility on which work is to be performed. The Offeror shall assume probe depths of 4 feet and 14 feet with one unit of soil gas work equal to ten (10) soil/gas points, and shall explain in detail any additional assumptions made in its proposal.

TASK 3. GEOPHYSICAL SURVEY. The Contractor shall conduct a geophysical survey using ground penetrating radar to locate underground tanks and/or pipelines in unexposed soils. This task includes preparation and submittal to the Contracting Officer two (2) "hard" (paper) copies and one copy on CD-R media of a report explaining how the survey was conducted and detailing survey results. The Offeror shall assume one unit of geophysical survey work is equal to 10,000 linear feet.

TASK 4. SOIL BORINGS. The Contractor shall install borings using a hollow stem auger. Take soil samples every 5 feet or whenever a soil change is detected, employing a split spoon sampler. Samples shall be screened by head space analysis using an organic vapor analyzer (OVA) or equal. Drilling equipment shall be steam cleaned before installation of each boring. A certified geologist or hydrogeologist, working under the direct supervision of a registered geologist, shall be on-site throughout the drilling phase to classify soil conditions encountered, oversee boring installation, prepare boring logs, and monitor grouting of borings. Soil produced in drilling of borings shall be screened, and contaminated soil shall be placed on and covered with PVC sheeting. Non-contaminated soil shall be spread in the vicinity of the work. Disposal of contaminated soil will be authorized under Task 17. Soil handling procedures outlined under this Task are also applicable to all other Tasks where potentially contaminated soil is generated in the form of cuttings or excavation. Laboratory analysis of soil samples obtained will be ordered under Task 7.

TASK 5. MONITORING WELLS. The Contractor shall install 2" or 4" monitoring wells, as ordered. The monitoring wells shall be installed in accordance with procedures accepted by the state in which work is performed and the USEPA. Drilling equipment shall be steam cleaned before each use. Samples shall be collected using a clean split spoon every 5 feet or whenever a soil change is detected. The headspace of all soil samples shall be analyzed for volatile organic vapors using an OVA or equal. Each well shall be developed to restore the natural permeability of the surrounding formation adjacent to the borehole, and until the water removed is sand free. Water produced in well development shall be collected in drums. Uncontaminated water shall be disposed of on-site in the vicinity of the work. Disposal of contaminated water will be authorized under Tasks 15 and/or 16. The work shall include obtaining one water sample from the well after development, but analytical testing shall be ordered under Task 8. Water handling procedures outlined under this task shall also be applicable for all other tasks where water is produced with the exception of Task 12. Well construction shall be performed by personnel who are qualified in the locality in which the work is performed. A certified geologist or a hydrogeologist, working under the direct supervision of a registered geologist, shall be present as required in Task 4. Abandonment of existing monitoring wells may also be ordered under this task. Abandonment shall be conducted in full compliance with applicable regulatory agency requirements.

TASK 6. DIRECT PUSH TESTING. The Contractor shall use direct push testing procedures for screening or obtaining groundwater and soil samples for analytical testing. One soil sample and one water sample shall be collected from each probe location. Soil samples shall be screened by head space analysis using an OVA. Test probes shall be steam cleaned or otherwise effectively decontaminated after each use. The work includes grouting of bore holes in accordance with regulatory agency procedures. A certified geologist or hydrogeologist, working under the direct supervision of a registered geologist, shall be on site throughout the work to prepare logs and monitor grouting. One unit of direct push testing equals one day of on-site work. Assume a maximum probe depth of 50 feet.

TASK 7. BEACH SEDIMENT AND SHELLFISH SAMPLING. The Contractor shall obtain beach sediment, marine sediment, and shellfish samples to determine if any hydrocarbon exists. The Offeror shall submit with the proposal the sampling protocol for sediments and shellfish as required by the State in which the work is to be performed and explain in detail any assumptions made in the proposal.

TASK 8. SAMPLE TESTING. Soil samples collected under Task 4, 5, and 6 and groundwater samples collected under Tasks 5 and 6 shall be tested utilizing the test methods listed below. The types and number of tests to be performed for all Tasks will be determined at the time the work is ordered. In addition to providing "hard copies" of all analytical results, electronic deliverables of results must also be included in the price. The Offeror shall provide the turnaround time (business days) to obtain results and surcharges for 72 hour and 24 hour expedited turnaround. Sample preparation cost (extractions, dissolution, filtering, etc.) for samples requiring preparation prior to analysis shall be included in the price.

SOILS:

SW-846 METHOD

6010

8015

COMPOUNDS

Total Lead

Non-Halogenated Volatile Organics

8021	Aromatic and Halogenated Volatiles
8041	Phenols
8081	Organochlorine Pesticides & PCE's
8121	Chlorinated Hydrocarbons
8151	Chlorinated Herbicides
8260	Volatile Organics
8270	Semi-Volatile organics
8310	Polynuclear Aromatic Hydrocarbons
8440	Total Recoverable Petroleum Hydrocarbons

GROUNDWATER:
40CFR136 METHOD

418.1	<u>COMPOUNDS</u>
601	Total Recoverable Petroleum Hydrocarbons
602	Purgeable Hydrocarbons
604	Purgeable Aromatics
608	Phenols
610	Organochlorine Pesticides and PCBs
612	Polynuclear Aromatic Hydrocarbons
624	Chlorinated Hydrocarbons
625	Purgeables
	Base/Neutrals and Acids

SOILS/GROUNDWATER:

TCLP	Lead, Arsenic, Cadmium, Chromium
9045	Barium, Mercury, Selenium, Silver
1010/1020	pH
	Ignitability

PERMITTED OUTFALL AND OTHER TESTS:

Bioassay (Toxicity)
Chloride
Sulfates
Sulfides
Nitrogen
Phenols
Turbidity
Lead
pH
Settleable Solids
Total Dissolved Solids
BOD
Suspended Solids
EDB
Phenolic Compounds (Chlorinated)
Oil & Grease
EPA-TO-14 (BTEX Only)
Nitrate/Nitrite
Ammonia
Total Organic Carbon
Orthophosphate
Moisture Content
Total Bacterial Plate Count
Selective Bacterial Plate Count
Particle Size Analysis ASTM D 422
Hydraulic Conductivity ASTM D 5084
Permeability of Granular Soils ASTM D 2434

TASK 9. WELL SURVEY. Following completion of monitoring well installation, the wells will be surveyed for plan location with respect to existing site facilities and for elevation. The ground surface elevation will be recorded as well as the top of casing of each well. The elevation will utilize the same datum as the existing monitoring well system or to another datum suitable for the site. A state licensed surveyor will perform the work. One unit of surveying consists of locating and plotting 10 wells.

TASK 10. RECOVERY WELLS. In the event free product is detected in any boring or monitoring well, a 6" diameter product recovery well shall be installed. The work shall include installation of the 6" diameter well and installation of a water table depression and free product recovery pump system. The proposal shall also include the cost to convert an existing 4" monitoring well to a recovery well by installing a water table depression and free product recovery pump system. The pump system shall be rated 2-10 GPM suitable for a 50 ft. well. The work is to include all electrical and plumbing requirements within the well up to the top of the well casing. Provisions for electrical power, storage and disposal of recovered fuel, and water handling will be ordered under other appropriate Tasks depending on site specific conditions. Monthly operation and maintenance of the recovery well system shall be identified separately in the proposal and shall include all efforts required to keep the pump system operational.

TASK 11. RECOVERY TRENCH SYSTEM. The Contractor shall construct a closed interceptor recovery trench and well system. Trench walls shall be lined with PVC sheeting on the down gradient side. A perforated drain line shall be installed on the trench floor and the trench shall be backfilled with coarse gravel. Recovery well requirements shall conform to the requirements of Task 10. The Offeror shall assume that one unit of trench system is 50 feet long, 5 feet wide and 10 feet deep. The pump system shall be rated 2-10 GPM. The work is to include all electrical and plumbing requirements within the trench/well up to the top of the trench. Provisions for electrical power, storage and disposal of recovered fuel, and water handling will be ordered under other appropriate tasks depending on site specific conditions. Monthly operation and maintenance of the recovery system, shall be identified separately in the proposal and shall include all efforts required to keep the pump system operational.

TASK 12. PUMP TEST. Perform a pump test to establish the optimum pumping rate and to evaluate the safe yield of the pumping well. The Contractor shall measure pre-test fluctuations of the groundwater levels in the production and observation wells. The pump test shall be conducted using a 6" diameter production well and two 2" diameter monitoring wells adjacent to the production well. Well installation costs will be as provided in Task 5 and the 6" production well will be provided under Task 10. The Contractor shall pump from the production well and observe water levels in the observation wells during the entire duration of pumping and after pumping is completed until at least 90% of the initial static water level is recovered. Pumping shall be performed for a minimum of 8 hours. Assume discharge water can be disposed of without any special treatment. Contractor shall interpret, tabulate, and provide graphical representation of the results. Finally, Contractor shall conduct a simulation of groundwater recovery through computer modeling to determine the optimum groundwater pumping rate for remediation. The work shall include all necessary equipment and personnel to conduct the test and analyze results.

TASK 13. REMEDIATION. The results of the feasibility study and/or pilot test requested for the remediation systems listed below shall be used to install a functional full scale remediation system. Documentation shall be prepared in sufficient detail to obtain approval of the system from regulatory agencies and enable installation and operation of the system. Actual installation of the system will be ordered under Tasks 15 and 16. As part of the proposal, Offerors shall submit a summary of the process to be used to proceed from the feasibility study/pilot test phase to the full scale operational system for each remediation method. Reasonable assumptions about the size of the contaminated area, depth to groundwater, etc. should be made and explained. Proposals shall include the cost of studies/texts, the estimated number of man-hours and cost per man hour to develop system documentation in sufficient detail to obtain regulatory agency approval for the remediation method and enable the Contractor to install a full scale system.

a. **Vapor Extraction System.** Conduct a feasibility study and pilot test for a functional vapor extraction system. The pilot test shall as a minimum consist of installing four (4) vapor extraction wells to evaluate the region of influence, evacuation rates, and concentration of TPH in the extracted vapor stream by connecting a vacuum blower to one extraction well and monitoring the vacuum in the other wells.

b. **In-Situ Bioremediation system.** Contractor shall conduct a bioremediation feasibility study to execute an in-situ bioremediation process. The Offeror shall include in the proposal a detailed explanation of what the study will include, but at a minimum include the following:

- i. Conduct literature search
- ii. Run general organic concentration tests
- iii. Run treatability studies
- iv. Select biological process to be applied

c. **Air Stripper.** Conduct an on-site pilot test using a mobile packed tower or any other acceptable method to examine the effects of such parameters as liquid loading rate, air: water ratio and packing height. Assume a flow rate of 2-10 GPM and a groundwater contamination level of 500 ppm TPH.

d. **Liquid Phase Carbon Adsorption.** Develop a liquid phase carbon adsorption system based on treating a 10 GPM flow at a contamination level of 500 PPM TPH using existing liquid phase adsorption isotherms, with effluent meeting drinking water standards.

e. **Bioventing.** Conduct a pilot test to evaluate soil permeability and the ability to move air through the soil, and increase subsurface oxygen concentrations. Specifically:

- i. Determine the air permeability and effective radius of influence of injection wells.
- ii. Assess biologic uptake of available oxygen, and resulting carbon dioxide production.
- iii. Evaluate bioventing as a primary remediation system or in conjunction with other technologies.

- f. Air Sparging. Conduct a pilot test to determine the effectiveness of air sparging. Injected air must contact impacted groundwater, and move through the groundwater to the vadose zone where it can be collected by a vapor extraction system. Use vadose zone soil-gas pressure, oxygen and carbon dioxide concentration measurements to determine additional indications of influence from the observation wells.
- g. Steam Injection. Evaluate steam injection as a remedial technology using laboratory analysis. The purpose of the steam stripping shall be to evaluate the effectiveness of applying steam to remove adsorbed-phase organic compounds from the soil. Steam stripping shall be achieved by raising the matrix temperature resulting in elevated vapor pressure, reduced viscosities and increased mobility.
- h. Bioslurping. Conduct tests to evaluate bioslurping technology. The evaluation shall include bioventing employing low flow vapor extraction and free product recovery employing vacuum enhanced pumping.
- i. Other. Offerors are invited to submit lump sum prices and details for alternative remediation methods for contaminated soil and/or water.

TASK 14. REPORTS. No later than 60 days after completion of any field work and/or receipt of analytical results, the Contractor shall prepare and submit five (5) copies of a report of findings to the Contracting Officer. After the report has been finalized and approved, provide the Contracting Officer one (1) CD-R media copy of the report to include all documents and correspondence relative to the report. The report shall include a description of site conditions and the condition of the soils, surface water, groundwater and any remediation that was accomplished. Proposals shall be based on the assumption that 30 work hours will be required to prepare a completed report. Specific enclosures would typically include the following where applicable:

- a. Site location map.
- b. The geologic description and classification of subsurface soils.
- c. Typical geological cross sections.
- d. Monitoring well boring logs.
- e. Well locations and elevation survey.
- f. Groundwater flow map.
- g. Sampling QA/QC information.
- h. Laboratory analytical results for soil and water samples.
- i. Description of any remedial action that was completed.
- j. Recommendations for future activities with estimated costs.

TASK 15. MISCELLANEOUS SERVICES. When authorized by the Contracting Officer, the Contractor shall provide environmental services not specified elsewhere in this contract. The Government reserves the right to accomplish this work with its own forces or by other contracts when the Contracting Officer determines that it is in the best interest of the Government. Unit prices offered for work accomplished under TASK 15 shall be for the prime contractors and any sub-contractors allowable, allocable, and reasonable direct costs pursuant to FAR Section 31 plus any associated indirect costs allowable under the provisions of FAR Section 31.

TASK 16. OTHER DIRECT COSTS (COST REIMBURSEMENT). In the event the Government requires services, materials, or supplies to be provided under this contract the cost of which has not been provided for under any other contract line item, such services, materials, and supplies will be furnished under Task 16. This is the only Task under this contract for which the contractor will be entitled to mark-ups for overhead and profit (OH&P) to be added to the direct cost of the work since the prices offered on all other TASKS are assumed to include OH&P. Offerors are required to provide the total percentage of mark-up to be added to their direct cost for work ordered under CLIN 0016. The Government estimate of cost of services under TASK 16 is shown under CLIN 0016 in Clause M28.04.

TASK 17. BACKGROUND REVIEW. The Contractor shall be responsible for understanding the existing site conditions at the DFSPs in order to carry out ongoing and future environmental projects and to represent the Government at meetings (i.e., RAB, state, etc.). Unreasonably low review hours and key personnel mix will demonstrate that the contractor does not understand the complexity of work. Copies of past environmental studies for each site are available at the following locations:

- a. DFSP Grand Forks: Ft. Belvoir, VA
- b. DFSP Cincinnati: Ft. Belvoir, VA

SPECIAL NOTES:

- a. Normal facility operating hours are from 7:00 AM to 4:00 PM Monday thru Friday except Federal holidays. The Contractor will confine his operations to these hours except under emergency conditions when special access will be authorized. The contractor, under special circumstances, may be required to work at night along the cross-country pipelines (e.g. to minimize the adverse impact to traffic on public roads).
- b. The Contractor will familiarize all of his on-site personnel with terminal safety regulations and insure compliance with them. Electrical equipment used within storage tank dike areas will be suitable for operation in a Class 1 Division 1 Group D area as defined by the National Electrical Code. Internal combustion engines will be equipped with spark arrestors on exhausts. Atmosphere in the work area will be monitored with an explosimeter. All work will be halted whenever readings exceed 25% of the lower explosive limit.
- c. All nonusable surplus material and debris resulting from work under this contract shall be removed from the site by the Contractor. The Contractor shall be responsible for transportation and disposal of nonhazardous debris, rubbish, and nonusable material resulting from work under this contract. Nonhazardous waste must be disposed of by the Contractor off Government property except for nonhazardous soil cuttings from boring and monitoring well construction and nonhazardous groundwater from monitoring well development, which may be spread on-site adjacent to the location at which they were generated.
- d. The Contractor may be tasked to properly dispose of hazardous soil cuttings and/or water generated as a result of work under this contract. Disposal shall include packaging, labeling, temporary storage, and transportation in accordance with all applicable federal, state, and local statutes and regulations. Manifests for transportation and disposal of the waste shall be prepared by the Contractor and will be signed by a Government representative. A copy of the manifest shall be provided to the Contracting Officer. Reimbursement for the disposal of hazardous waste shall be made CLIN 0016.
- e. Proposals shall be based on the assumption that all work areas are accessible to rubber tire mounted equipment. Additional compensation will be negotiated under CLINs 0015 and/or 0016 for access to those areas accessible by a tracked vehicle or other specialized equipment.
- f. The terminal superintendent will assist the contractor in locating sub-surface utilities. In addition, the contractor shall make use of all available resources to avoid damaging utilities to include checking "as-built" drawings, utility locating services (Miss Utility, Underground Service Alert, etc.), and electronic pipe/cable locators.
- g. If the Offeror has suggested alternatives to the specific requirements in the Statement of Work, those suggestions should be addressed in a separate section of the proposal.

ENVIRONMENTAL RESPONSE CONTRACTFACILITY DESCRIPTIONSDFSP CINCINNATI, OHIO

OPERATIONAL STATUS: Closed

ADDRESS: Defense Fuel Support Point, 4820 River Road, Cincinnati, Ohio 45224

TYPE(S) OF FUEL: JP-8,

STORAGE CAPACITY: 6 bulk ASTs - all empty and deactivated

SIZE OF FACILITY: 67 acres

RECEIPT MODES: Deactivated barge pier and tank truck loading rack

SHIPMENT MODES: Deactivated barge pier tank and tank truck loading rack

NOTE: This facility is currently being evaluated for (1) the presence of lead paint chips inside the dike berms; (2) dissolved phase and separate phase petroleum in soil and groundwater.

DFSP GRAND FORKS, NORTH DAKOTA

OPERATIONAL STATUS: Open

ADDRESS: 4128 A 27th Avenue North, Grand Forks, ND 58203-1338

TYPE(S) OF FUEL: JP-8 (jet fuel)

STORAGE CAPACITY: 217,539 barrels in nine aboveground steel tanks; and, 1000 gallons in two underground storage tanks

SIZE OF FACILITY: 11 acres

RECEIPT MODES: Pipeline and tank truck loading rack

SHIPMENT MODES: Tank truck and cross country pipeline to Grand Forks AFB

Phone Number: 701-795-1383

Hours: 7:00 AM to 4:00 PM, Mon-Fri

NOTE: This facility is currently being monitored for the presence of jet fuel in soil and groundwater. Requires annual sampling of groundwater monitoring wells.